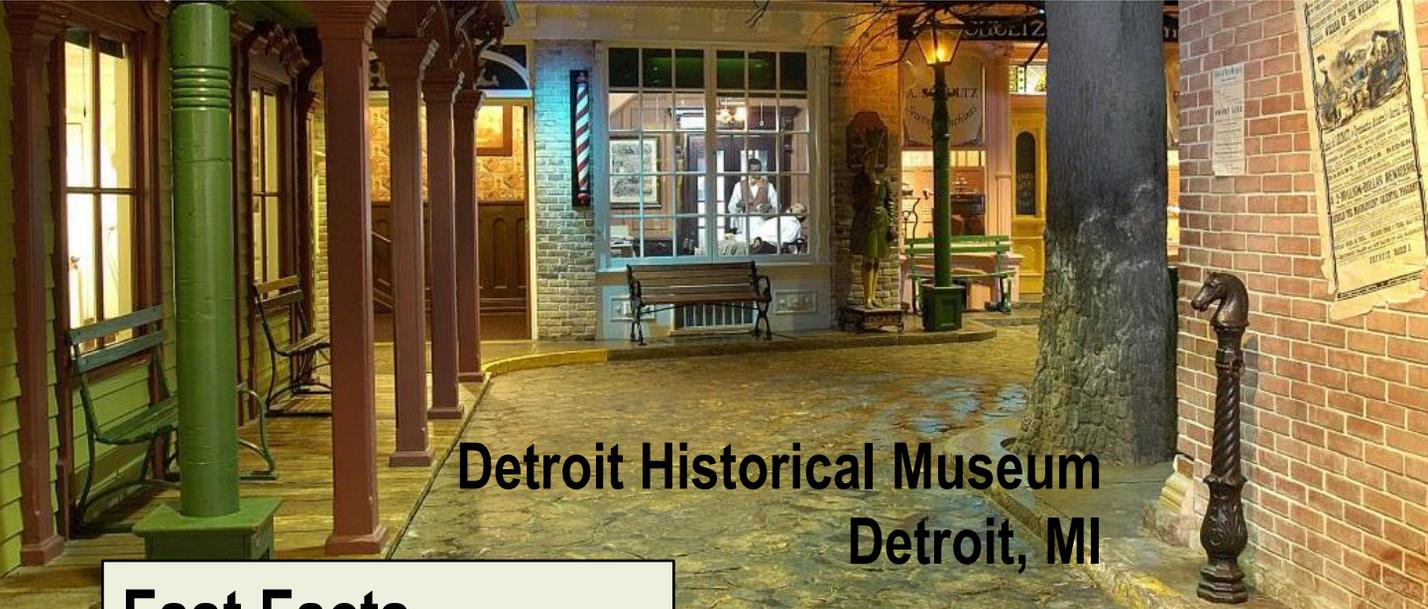




# Newman

## Consulting Group LLC



## Detroit Historical Museum

### Detroit, MI

### Fast Facts

Three-story museum with rectangular structure, a flat roof, and 10% windows.

Year Built: 1951, expanded 1960

Size: 79,000 sq. ft.

Use: Public museum space

Hours: Tue-Fri 9:30 a.m. to 4 p.m.  
Sat, Sun 10 a.m. to 5 p.m.  
Some evenings

Museum is open to the public, school groups, camps, etc. and can be rented for special occasions.

Strategies:

- Schedule Air Handling Units Properly
- Reduce Ventilation in one AHU

Amount Financed: \$12,663

Estimated Savings: \$14,069

Simple Payback: 0.9 years



## Detroit Historical Museum Detroit, MI

### Project Background

First opened in 1951, the Detroit Historical Museum continues to be a jewel in the crown of Detroit cultural hot spots. But a 79,000 sq. ft. building that is approaching 70 years old, and has undergone several renovations, is a prime candidate for energy conservation measures.

As part of a DTE Energy and Nexant Retro-commissioning (RCx) project for no-cost and low-cost energy conservation measures (ECMs) with short-term payback, Newman Consulting Group (NCG) conducted an ASHRAE Level 2 Energy Analysis and RCx Study. This uncovered several opportunities that would not only make the tenants more comfortable, but also save money.

### Strategies and Results

The main finding was that the building controls were not set to optimize energy efficiency, typically running at the same temperature 24-hours a day. Some relatively simple modifications to the existing building automation system hardware and software resulted in substantial savings.

Schedule Air Handling Units Properly:

- Implemented new schedules for times when building was unoccupied.
- Customized air handler schedules to match museum hours with 4-hour override available as needed.
- Adjusted air handling units for unoccupied times to reduce energy use while maintaining necessary humidity to protect historic documents and artifacts.

Reduce Ventilation in one AHU:

- Modify economizer hardware and software to allow proper amount of outside air depending on the temperature

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### About Newman Consulting Group

Newman Consulting Group, LLC (NCG), Farmington Hills, MI, is a globally recognized authority in energy efficient buildings. NCG works with architects, engineers, building owners, facility managers and contractors in Michigan and around the world to design and build more energy-efficient buildings to LEED®, Energy Star® and other sustainable guidelines.

The NCG team of highly skilled engineers, analysts, program managers and certified professionals helps commercial, industrial and multi-family property owners all over the U.S. implement energy efficiency projects (including renewable energy), eliminate waste, and save money through innovative financing.